## UTILITY PATENT APPLICATION

Attorney Docket No. First Inventor		2003-IP-012001 (1391-45200)  David Joe Steele						

TATEM ACTION	First Inve	David Joe Steele								
TRANSMITTAL  (Only for new nonprovisional applications under 37 CFR 1.53(b))	Title	Loop Systems And Methods Of Using The Same For Conveying And Distributing Thermal Energy Into A Wellbore								
	Express N	s Mail Label No. EL 989054086 US								
APPLICATION ELEMENTS		ADDRESS TO: Mail Stop Patent Application								
See MPEP chapter 600 concerning utility patent application conte	ents.	Commissioner for Patents P. O. Box 1450 Arlington VA 22313-1450								
1. E Fee Transmittal Form (e.g., PTO/SB/17)	smittal Form (e.g., PTO/SB/17)  7.  CD-ROM or CD-R in duplicate, large table or									
(Submit an original and a duplicate for fee processing)										
2. Applicant claims small entity status.  See 37 CFR 1.27.										
3. Specification [Total Pages 38]  (preferred arrangement set forth below)  - Descriptive title of the invention		<ul> <li>b. Specification Sequence Listing on:</li> <li>i.</li></ul>								
<ul> <li>Cross Reference to Related Applications</li> <li>Statement Regarding Fed sponsored R &amp; D</li> </ul>	Г	c. Statements verifying identity of above copies								
- Reference to sequence listing, a table,	-	ACCOMPANYING APPLICATION PARTS								
or a computer program listing appendix - Background of the Invention		9. Assignment Papers (cover sheet & document(s))								
<ul><li>Brief Summary of the Invention</li><li>Brief Description of the Drawings (if filed)</li></ul>		10. 37 CFR 3.73(b) Statement Power of (when there is an assignee) Attorney								
<ul><li>Detailed Description</li><li>Claim(s)</li></ul>		11.								
- Abstract of the Disclosure  4. Drawing(s) (35 U.S.C. 113) [Total Sheets 6]		12. Information Disclosure Copies of IDS Statement (IDS)/PTO-1449 Citations								
5. Oath and Declaration [Total Pages]		13.  Preliminary Amendment								
<ul> <li>a. Newly executed (original or copy)</li> <li>b. Copy from a prior application (37 CFR 1.63(d))</li> </ul>	))	<ul> <li>14. Return Receipt Postcard (MPEP 503) (Should be specifically itemized)</li> <li>15. Certified Copy of Priority Document(s) (if foreign priority is claimed)</li> <li>16. Nonpublication Request under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.</li> </ul>								
i. DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s)										
named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).										
6. Application Data Sheet. See 37 CFR 1.76	I									
12 IC CONTRIBUTION ARRIVATION AND ICA		17.  Other:								
18. If a CONTINUING APPLICATION, check appropriate lamendment, or in an Application Data Sheet under 37 CFR 1.		upply the requisite information below in a preliminary								
	ation-in-Part (	(CIP) of prior application No.: Group/Art Unit:								
For CONTINUATION OR DIVISIONAL APPS only: The entire disclosur 5b, is considered a part of the disclosure of the accompanying continuation		or application, from which an oath or declaration is supplied under Box								
incorporation can only be relied upon when a portion has been inadverten	tly omitted fr	rom the submitted application parts.								
18. CORRESPONDENCE ADDRESS										
Customer Number of Bar Code Label  Name	30652	or Correspondence address below								
Name										
Address	T									
City State		Zip Code								
Country Telephone		Fax								
Name (Print/Type) Rodney B. Carroll Pegistration No. (Attorney/Agent) 39,624										
Signature	4	Date: 10-06-03								

	,		(			Complete if Known					
FEE TRANSMITTAL				Application Number				New Application			
For FY 2003				Filing Date			Herewith				
F01 F1 2003				First Named Inventor				David Joe Steele			
Patent fee.	Patent fees are subject to annual revision.				lame		Not Yet Assigned				
Applicant claims small entity status. See 37 CFR 1.27				Group Art Unit				Not Yet Assigned			
TOTAL AMOUNT	OF PAYMENT	\$ 2,068.00	Attor	Attorney Docket No. 2003-IP-012001 (1391-45200)							
METHOD OF PAYMENT (Check all that apply)			FEE CALCULATION (continued)								
☐ Check ☐ Credit	Card Money	Other None	3. ADDITIONAL FEES								
	Order	) Outer 🗀 Fronc		e Entity Fee	Small Fee	Entity Fee	Fee De	scription			
Deposit Account:	02 2760	1	Code	: (\$)	Code	(\$)				Fee Paid	
Deposit Account Num Deposit Account Nam			1051 1052		2051 2052			rge - late filing fee or		\$	
Deposit Account Fam.	c. Comey Rose, 1.C.		1032	. JU	2032	25		rge - late provisional	filing	s	
	ereby authorized to: (che	eck all that apply)	1053	130	1053	130	Non-English specification			\$	
Charge fee(s) indicated			1812	2,520	1812	2,520		ng a request for ex pa	rte	42	
	fee(s) during the pendency		1804	2 920*	1804	920*	Reques	ination ting publication of SI	ID major	\$	
to the above-identified dep	d below, except for the filir	ig fee	100-7	2 920	1004	720		ning publication of Si	IK prior	S	
			1805	1,840*	1805	1,840*	Request	ting publication of SI	R after	•	
	EE CALCULATION			- 10				ner action		\$	
1. BASIC FILING		1	1251 1252		2251 2252			on for reply within fi		\$	
Large Entity Small E		1	1252		2252			on for reply within se on for reply within th		\$ \$	
	Fee Fee Description			1,480	2254			on for reply within fo		\$	
	(\$) 385 Utility filing Fee	Fee Paid \$770.00	1255	2,010	2255	1,025	Extensi	on for reply within fi		\$	
	385 Utility filing Fee 170 Design filing fee	\$	1401		2401	165	Notice of	of Appeal		\$	
	265 Plant filing fee	Š	1402		2402			brief in support of a	n appeal	\$	
1004 770 2004	385 Reissue filing fee	\$	1403 1451	290 1,510	2403 1452			t for oral hearing to institute a public	1754	\$	
1005 160 2005	80 Provisional filing fee	S	177.	1,310	1452	1,310	proceed		ust	\$	
			1452	110	2452	55		to revive - unavoida	ble	\$	
	SUBTOTAL (1)	) \$\$ <u>770.00</u>		1,330	2453			to revive - unintenti	onal	\$	
				1,330	2501			issue fee (or reissue)		\$	
2. EXTRA CLAIM	FEES FOR UTILITY	AND REISSUE	1502 1503		2502 2503			issue fee		\$	
	Fee fro		1460		1460		Plant issue fee Petitions to the Commissioner			\$	
	Extra Claims below		1807		1806					\$	
	0** = 53 x 18.00 3** = 4 x 86.00		123	50	123	50	Petition	s related to provision	al applications	\$	
Independent 7 3	$3** = 4 \times 86.00$	0 = \$ 344.00	1806		1806			sion of Information I		\$	
	e Dependent 280.0	00 = \$ 00.00	8021	40	8021			ing each patent assign y (times number of pr			
	Dependent		1809	770	2809			y (times number of pr submission after fina		\$	
		J			200,		(37 CFI	R § 1.129(a))	ii iejeetton	\$	
Large Entity Small E			1810	770	2810	385	For each	h additional invention			
	Fee Fee Description	ļ						ed (37 CFR § 1.129(t		\$	
Code (\$) Code 1202 18 2202	(\$) 9 Claims in excess of 20	Λ .	1801	770	2801			t for Continued Exam		\$	
1201 84 2201	42 Independent Claims in		1802	900	1802			t for expedited exami	nation	s	
1203 280 2203	140 Multiple dependent cl	laim, if not paid	Other	r fee (spec	cify)		\$				
1204 84 2204	42 ** Reissue independe			****	,,						
1205 18 2205	over original pater  9 ** Reissue claims in e		*Reduced	by Basic	Filing F	ee Paid		SUBTO	TAL (3)	\$	
1205 18 2205											
	and over original p	atent	ĺ								
	SUBTOTAL (2)	\$ 1,298.00	ĺ								
** or number previously pai	id, if greater; For Reissues, so										
SUBMITTED BY			******				C	Complete (if applicable	le)		
		•	Registra	etion N	$\overline{}$						
Name (Print/Type)	Rodney B. Carroll					9,624		Telephone	(072) 731	2200	
Italic (1 rum 1 ypc)	MALL	(Attorney/Agent) 39,624					Telephone	(972) 731.2			
Signature	Ment.	MU						Date	10-6-	03	

WARNIC: Information on this form may become public. Credit card information should not be icluded on this form. Provide credit card information and authorization on PTO-2038.